

INTERNATIONAL SEARCH REPORT

International Application No

T/IB2004/052488

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 G11B7/22

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHEDMinimum documentation searched (classification system followed by classification symbols)
IPC 7 G11B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2003/179667 A1 (YOSHINAKA HIDEKI ET AL) 25 September 2003 (2003-09-25) paragraph '0029! - paragraph '0039! paragraph '0052! - paragraph '0054!; figures 3,5,7	1,2,5,6, 8
X	US 4 719 614 A (LETERME ET AL) 12 January 1988 (1988-01-12) column 4, line 56 - column 5, line 54; figure 11	1,5,7,8
X	EP 0 252 562 A (N.V. PHILIPS' GLOEILAMPENFABRIEKEN) 13 January 1988 (1988-01-13) page 3, column 4, line 25 - page 4, column 6, line 20; figures	1,2,5,8
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☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

26 April 2005

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national Application No

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 735 677 A (KAWACHI ET AL) 5 April 1988 (1988-04-05) cited in the application	1,5,6
Y	column 16, line 59 - column 19, line 17; figures 9-14 -----	2,8
Y	US 2002/145815 A1 (MORIYAMA KATSUYA ET AL) 10 October 2002 (2002-10-10) paragraph '0031! - paragraph '0071!; figures -----	2,8

INTERNATIONAL SEARCH REPORT
Information on patent family members

International Application No

P/IB2004/052488

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 2003179667	A1	25-09-2003	AU 2003214652 A1 WO 03079338 A2 JP 2003346355 A	29-09-2003 25-09-2003 05-12-2003
US 4719614	A	12-01-1988	FR 2546310 A1 CA 1255138 A1 DE 3464807 D1 EP 0127516 A1 JP 59227042 A	23-11-1984 06-06-1989 20-08-1987 05-12-1984 20-12-1984
EP 0252562	A	13-01-1988	NL 8601775 A DD 265243 A5 DE 3782100 D1 DE 3782100 T2 EP 0252562 A1 JP 2554086 B2 JP 63026830 A KR 9510328 B1 US 4796252 A US 4750826 A	01-02-1988 22-02-1989 12-11-1992 22-04-1993 13-01-1988 13-11-1996 04-02-1988 14-09-1995 03-01-1989 14-06-1988
US 4735677	A	05-04-1988	JP 1795099 C JP 5003748 B JP 61242069 A JP 61046911 A JP 1713391 C JP 2030485 B JP 61087113 A JP 1478545 C JP 61117513 A JP 63025644 B JP 61133911 A CA 1255382 A1 DE 3575208 D1 EP 0171615 A2 US 4750799 A	28-10-1993 18-01-1993 28-10-1986 07-03-1986 27-11-1992 06-07-1990 02-05-1986 27-01-1989 04-06-1986 26-05-1988 21-06-1986 06-06-1989 08-02-1990 19-02-1986 14-06-1988
US 2002145815	A1	10-10-2002	JP 2002269791 A CN 1375824 A	20-09-2002 23-10-2002